

REMARKS/ARGUMENTS

In the Office Action mailed December 1, 2008, claims 1-12 were rejected. Additionally, the specification was objected to. In response, Applicants hereby request reconsideration of the application in view of the amendments and the below-provided remarks. No claims are added or canceled.

For reference, claim 12 is amended. In particular, claim 12 is amended to recite a lead frame configuration, for consistency with the language of claim 11 from which it depends.

Specification

The Office Action suggests that section headings be added to the specification, according to the guidelines set forth in the MPEP. Applicants note that the suggested section headings are not required and, hence, Applicants respectfully decline to amend the specification to include the indicated section headings.

Objections to the Claims

The Office Action also objects to claims 7-12 for informalities. In particular, the preambles of claims 7-12 are objected to for being inconsistent. The Office Action does not provide a basis for the objections to claims 7-12 and fails to explain how the preambles of claims 7-12 may be inconsistent. Nevertheless, the language of claim 12 is amended to recite a lead frame configuration similar to the language of claims 7-11. Accordingly, Applicants respectfully request the objections to claims 7-12 be withdrawn.

Claim Rejections under 35 U.S.C. 103

Claims 1-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Prancz (U.S. Pat. No. 6,170,880, hereinafter Prancz) in view of Rose (U.S. Pat. No. 5,005,282, hereinafter Rose) further in view of Moll et al. (U.S. Pat. No. 7,245,005, hereinafter Moll) and further in view of Cipolla et al. (U.S. Pat. No. 5,780,925, hereinafter Cipolla). However, Applicants respectfully submit that these claims are patentable over Prancz, Rose, Moll, and Cipolla for the reasons provided below.

Independent Claim 1

Claim 1 recites “the module has a chip with at least two pairs of chip connection contacts and wherein the module has at least two pairs of module connecting plates” (emphasis added). Additionally, claim 1 recites “the two module connecting plates of each pair are provided for the electrically conductive connection with the component connection contacts of in each case one of at least two further components” (emphasis added). Additionally, claim 1 recites “each module connecting plate has a plate surface with a particular shape and is designed to be electrically conductive and is connected in an electrically conductive manner with a chip connection contact” (emphasis added). Additionally, claim 1 recites “the shapes of the plate surfaces of the two module connecting plates of each pair are identical, and wherein the shapes of the plate surfaces of the module connecting plates of different pairs are different” (emphasis added). Additionally, claim 1 recites “when, starting from the starting position, all the module connecting plates are jointly rotated around an axis that runs perpendicular in relation to the plate surfaces and that passes through the mid-point the same plate pattern always results after joint rotation around 180° in each case” (emphasis added).

A. Two Pair of Chip Connection Contacts

The Office Action relies solely on Prancz as purportedly teaching a module that has a chip with at least two pairs of chip connection contacts, as recited in the claim. The Office Action does not rely on Rose, Moll, or Cipolla as teaching the indicated limitation. However, Prancz does not teach a module that has a chip with at least two pairs of chip connection contacts.

Prancz generally teaches a chip connecting contact. Prancz, column 4, lines 1-23. However, Prancz fails to teach at least two pair of chip connection contacts. Typically, a pair of something connotes a group of two of something. However, two pair may connote more than a group of two such as a first pair of something and a second pair of something, or two separate pairs of the same thing. In contrast, Prancz teaches only one pair of chip connecting contacts. Prancz, column 4, lines 5-6 (“The chip 13 has two chip connecting contacts 14 and 15”). Teaching a total of two chip connection contacts could only indicate one pair of chip connection contacts. Hence, Prancz teaches only one pair

of connecting plates. Because Prancz only teaches a single pair of chip connecting contacts, Prancz could not teach a module that has a chip with at least two pairs of chip connection contacts, as recited in the claim.

B. Two Pair of Module Connection Plates

The Office Action relies solely on Moll as teaching two pair of module connection plates. Office Action, page 5. The Office Action recognizes that Prancz and Rose fail to teach two pair of module connection plates. Office Action, page 5. Additionally, the Office Action does not rely on Cipolla as teaching the indicated limitation. However, Moll does not teach two pair of module connection plates.

Moll generally teaches two connecting plates 12 and 13. Moll, column 4, lines 11-13. As explained above, teaching two of something does not indicate teaching at least two pairs of something. Teaching a total of two connecting plates could only indicate one pair of connecting plates. Hence, Moll teaches only one pair of connecting plates. Because Moll only teaches a single pair of connecting plates Moll could not teach a module that has at least two pairs of module connecting plates, as recited in the claim.

C. At Least Two Further Components

The Office Action relies solely on Moll as teaching at least two further components. With regard to at least two further components it should be noted that the Office Action recognizes that Prancz and Rose fail to teach at least two further components. Office Action, page 5. Additionally, the Office Action does not rely on Cipolla as teaching the indicated limitation. However, Moll does not teach the indicated limitation.

As described above, Moll generally teaches two connecting plates 12 and 13. Moll, column 4, lines 11-13. Moll also teaches connecting webs 28-33. Moll, column 4, lines 1-3. Specifically, the Office Action relies on the connecting webs 28-33 of Moll as teaching at least two further components. Office Action, page 6. However, Applicants note that a connecting web is not a component but rather a type of connector. Typically, a component includes passive components and active components. Passive components do not have gain or directionality and include resistors, inductors, capacitors, and so

forth. Active components are those that have gain or directionality and include semiconductors, operational amplifiers, transistors, and so forth. A web connector is neither a passive component nor an active component. In fact, it appears that Moll fails to describe two module connecting plates provided for the electrically conductive connection with the component connection contacts of in each case one of at least two further components. Hence, Moll does not teach two module connecting plates provided for the electrically conductive connection with the component connection contacts of in each case one of at least two further components.

D. Connections to the Two Pair of Module Connection Plates

The Office Action relies solely on Moll as teaching a module connection plate that connects to a component connection contact. Furthermore, the Office Action recognizes that Prancz and Rose fail to teach a module connection plate that connects to a component connection contact. Office Action, pages 5-6. Additionally, the Office Action does not rely on Cipolla as teaching the indicated limitation. However, Moll does not teach the indicated limitation.

As described above, claim 1 recites that “the two module connecting plates of each pair are provided for the electrically conductive connection with the component connection contacts.” Additionally, claim 1 recites that a “module connecting plate is connected in an electrically conductive manner with a chip connection contact.” In contrast, Moll fails to teach that the first connecting plate 12 and/or the second connecting plate 13 connect to a component connection contact. Instead, Moll teaches that “between the first connecting plate 12 and the frame base 3 lie a total of three connecting webs 28, 29 and 30, by means of which the first connection plate 12 is connected both mechanically and electrically conductively with the frame base 3” (emphasis added). Moll, column 3, line 67 to column 4, line 4. Additionally, Moll teaches that “the second connecting plate 13 is connected with a frame base 3” (emphasis added). Moll, column 4, lines 7-8. Additionally, Moll teaches that “each of the two connecting plates 12 and 13 is intended to connect with a chip connection of a chip.” Moll, column 4, lines 9-10. In other words, the connecting plates of Moll connect to a frame base and a chip connection. Moll appears silent with regard to a connecting plate

connecting to a component connection contact. Hence, Moll does not teach the indicated limitations.

E. Each Module Connecting Plate of a Pair Identical

The Office Action relies solely on Rose as teaching the shapes of the plate surfaces of the two module connecting plates of each pair are identical. The Office Action recognizes that Prancz fails to teach the indicated limitations. Office Action, page 4. Additionally, does not rely on Moll or Cipolla as teaching the indicated limitation. However, Rose fails to teach the shapes of the plate surfaces of the two module connecting plates of each pair are identical.

Specifically, the Office Action relies on the metal strip 10 of Rose as teaching the shapes of the plate surfaces of the two module connecting plates of each pair are identical. Office Action, page 4. Rose generally teaches a metal strip 10 with a succession of lead frames. Rose, column 2, lines 33-34. Additionally, Rose teaches that each lead frame on the metal strip 10 is identical. Rose, column 2, lines 51-53. However, Rose fails to teach the shapes of the plate surfaces of the two module connecting plates of each pair are identical because Rose does not refer to a pair of module connecting plates that are identical but to a succession of lead frames on a metal strip 10. Firstly, although a succession of lead frames could technically denote a pair of lead frames, typically a succession of lead frames would imply more than two lead frames. Secondly, although some embodiments of a lead frame may include a module connecting plate, nonetheless, a lead frame is not a module connecting plate. Hence, Rose fails to teach the shapes of the plate surfaces of the two module connecting plates of each pair are identical, as recited in the claim.

F. Each Pair of Module Connecting Plates Different From Each Other

The Office Action relies solely on Rose as teaching the shapes of the plate surfaces of the module connecting plates of different pairs are different. The Office Action recognizes that Prancz fails to teach the indicated limitations. Office Action, page 4. Additionally, does not rely on Moll or Cipolla as teaching the indicated limitation.

However, Rose fails to teach the shapes of the plate surfaces of the module connecting plates of different pairs are different.

Specifically, the Office Action relies on Figures 1 and 2 as well as column 2, lines 51-65 of Rose to teach the shapes of the plate surfaces of the module connecting plates of different pairs are different. Office Action, page 4. As mentioned above, Rose generally teaches a metal strip 10 with a succession of lead frames. Rose, column 2, lines 33-34. Additionally, Rose teaches connection zones 20 to 34. Rose, column 3, lines 1-18. However, Rose fails to teach that any of the connection zones 20 to 34 are pairs that are identical or different. Although Figure 1 of Rose appears to show that there could possibly be pairs of connection zones, a Figure alone is insufficient to teach a pair of module connecting plates that are different or identical as Rose appears to be silent with regard to identical or different pairs of connection zones. Hence, Rose fails to teach the shapes of the plate surfaces of the module connecting plates of different pairs are different, as recited in the claim.

G. 180° Parity in the Rotation of the Module Connecting Plates

The Office Action relies on Cipolla as teaching that when all the module connecting plates, starting from the starting position, are jointly rotated around an axis that runs perpendicular in relation to the plate surfaces and that passes through the mid-point the same plate pattern always results after joint rotation around 180° in each case. Office Action 7. However, Cipolla does not refer to module connecting plates, patterns of module connecting plates, or rotating module connecting plates.

Cipolla generally relates to electronic device packaging structures. Cipolla, Abstract. Instead, Cipolla relates to two electronic devices that are “stacked in at an offset with respect to each” and explains that, preferably, the chips of the two electronic devices “are identical and rotated 180° with respect to each other.” Clearly, Cipolla is not describing module connecting plates, but instead, Cipolla relates to two electronic devices that contain chips that are preferably identical and rotated 180° with respect to each other. Cipolla appears silent with regard to connecting plates, patterns of module connecting plates, and/or rotating module connecting plates. Hence, Cipolla does not teach that when all the module connecting plates, starting from the starting position, are

jointly rotated around an axis that runs perpendicular in relation to the plate surfaces and that passes through the mid-point the same plate pattern always results after joint rotation around 180° in each case.

For the reasons presented above, Prancz, Moll, Rose, and Cipolla do not teach all of the limitations of the claim because Prancz, Moll, Rose, and Cipolla do not teach the various limitations indicated in subsections A-G above. Accordingly, Applicants respectfully assert claim 1 is patentable over Prancz, Moll, Rose, and Cipolla because Prancz, Moll, Rose, and Cipolla do not teach all of the limitations of the claim.

Dependent Claims

Claims 2-12 depend from and incorporate all of the limitations of independent claim 1. Applicants respectfully assert claims 2-12 are allowable based on an allowable base claim. Additionally, each of claims 2-12 may be allowable for further reasons.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

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